

Notice of Allowability

Application No.

09/759,804

Examiner

Marc R. Filipczyk

Applicant(s)

CHAUDHURI ET AL.

Art Unit

2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/7/07 and 7/17/07.
2. ☒ The allowed claim(s) is/are 49 and 53.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 7/17/2007.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


DON WONG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 8/13/01, 10/22/02, 6/30/04.

DETAILED ACTION

This Action is responsive to Applicant's Appeal Brief filed on May 7, 2007 and an Examiner's Interview conducted on July 17, 2007.

Claims 49-54 are pending.

Information Disclosure Statement

The Chandhuri reference submitted on 8/6/2001 Information Disclosure Statement (IDS) was not considered because it does not at least include a date. The first reference (ftp.research...) submitted in the 10/22/2002 (IDS) was not considered because a link does not meet the USPTO submission guidelines. All other references are in compliance.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Stephen Siu and Peter Taylor on July 17, 2007.

AMENDMENT TO CLAIMS

49. (Currently Amended) A computer-implemented method, comprising:

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collecting information representative of a plurality of past queries against a database,
the information collected from a log of the plurality of past queries executed against the
database;

examining the collected information to determine a number of times each tuple in a set
of at least 3 tuples in the database was accessed, the accessing indicating the number of times
each tuple in the set of at least 3 tuples passed a selection criteria of the plurality of past
queries during execution of the plurality of past queries, wherein the set of at least 3 tuples
each have a separate access frequency;

determining a weight for each tuple in a set of at least three tuples in a database based
on a number of times the access frequency of each tuple was accessed during one or more past
queries executed against the database;

selecting a subset of tuples, the subset including at least two tuples, from the set of
tuples based on the determined weights, the selecting performed by applying a selection filter
to the set of tuples;

~~determining an answer to a given query using the subset of tuples.~~

executing a query against the subset of tuples to determine an answer to a query made
against the database, wherein executing the query against the subset of tuples to determine the
answer to the query made against the database comprises:

for each tuple in the subset of tuples, determining and storing a probability with
which the tuple was selected, wherein the probability represents the number of tuples in
the subset of tuples each tuple is similar to;

executing the query against the subset of tuples to identify candidate tuples; and

determining an answer using information from the candidate tuples in the subset
of tuples and inverses of the probabilities of the candidate tuples.

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51. (Cancelled)

52. (Cancelled)

53. (Currently Amended) A computer-readable media storing computer-executable instructions, which, when executed by a computing device, implement a method comprising:

collecting information ~~related to~~ representative of one or more a plurality of past queries against a database, the information collected from a log of the plurality of past queries executed against the database;

examining the collected information to determine a number of times each tuple in a set of at least 3 tuples in the database was accessed, the accessing indicating the number of times each tuple in the set of at least 3 tuples passed a selection criteria of the plurality of past queries during execution of the one or more plurality of past queries, wherein the set of at least 3 tuples each have a separate access frequency;

determining a weight for each tuple in the set of at least 3 tuples based on the access frequency of ~~number of times the tuple was accessed;~~

selecting a subset of tuples, the subset including at least two tuples, from the set of tuples based on the determined weights, the selecting performed by applying a selection filter to the set of tuples;

executing a query against the subset of tuples to determine an answer to the a query made against the database, wherein executing the query against the subset of tuples to determine the answer to the query made against the database comprises:

for each tuple in the subset of tuples, determining and storing a probability with which the tuple was selected, wherein the probability represents the number of tuples in the subset of tuples each tuple is similar to;

executing the query against the subset of tuples to identify candidate tuples; and

determining an answer using information from the candidate tuples in the subset of tuples and inverses of the probabilities of the candidate tuples.

54. (Cancelled)

Allowable Subject Matter

Claims 49 and 53 are allowable over the prior art of record, renumbered as claims 1 and 2, respectively.

The following is an examiner's statement of reasons for allowance:

Claims 49 and 53 are allowable because the prior art of record or that encountered in searching for the invention, fails to disclose or suggest examining collected information to determine a number of times each tuple in a set of at least 3 tuples in a database was accessed, the accessing indicating the number of times each tuple in the set of at least 3 tuples passed a selection criteria of the plurality of past queries during execution of the plurality of past queries, wherein the set of at least 3 tuples each have a separate access frequency, determining a weight for each tuple and determining an answer using information from candidate tuples in a subset of tuples and inverses of probabilities of the candidate tuples, as claimed in addition to the other claim provisions.

Hence, claims 49 and 53 are allowed and remaining claims 1-48, 50-52 and 54 have been cancelled.

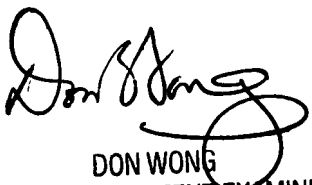
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc R. Filipczyk whose telephone number is (571) 272-4019. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MF
July 25, 2007


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